

ABSTRACT OF THE DISCLOSURE

A method of compensating for chromatic dispersion in an optical signal transmitted on a long-haul terrestrial optical communication system including a plurality of spans, including: allowing chromatic dispersion to accumulate over at least one of the spans to a first predetermined level; and compensating for the first pre-determined level of dispersion using a dispersion compensating fiber causing accumulation of dispersion to a second predetermined level. There is also provided a hybrid Raman/EDFA amplifier including a Raman portion and an EDFA portion with a dispersion compensating fiber disposed therebetween. An optical communication system and a method of communicating an optical signal using such a Raman/EDFA amplifier are also provided.

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